

Exhibit 2

CERTIFICATION

The individual or institution listed below (the "Plaintiff") authorizes the Rosen Law Firm, P.A. to file an action or amend a current action under the federal securities laws to recover damages and to seek other relief against Deutsche Bank Aktiengesellschaft (NYSE: DB), and their current and former officers, and others in connection with the purchase and sale of securities issued by DB.

Plaintiff declares, as to the claims asserted under the federal securities laws, that:


1. I have reviewed a complaint against DB and certain of their officers and directors and I authorize The Rosen Law Firm, PA to file a lead plaintiff motion on my behalf.
2. I did not engage in transactions in the securities that are the subject of this action at the direction of plaintiff's counsel or in order to participate in this or any other litigation under the securities laws of the United States.
3. I am willing to serve as a lead plaintiff either individually or as part of a group. A lead plaintiff is a representative party who acts on behalf of other class members in directing the action, and whose duties may include testifying at deposition and trial.
4. The following is a list of all of the purchases and sales I have made in DB securities during the Class Period set forth in the complaint. I have made no transactions during the class period in the securities that are the subject of this lawsuit except those set forth below.

See Schedule A

5. I have not, within the three years preceding the date of this certification, sought to serve or served as a representative party on behalf of a class in an action involving alleged violations of the federal securities laws, except for the following company(ies): *In Re: Tupperware Brands Corporation Securities Litigation* (M.D. Fla.)
6. I will not accept any payment for serving as a representative party beyond my pro rata share of any recovery, except reasonable costs and expenses, such as travel expenses and lost wages directly related to the class representation, as ordered or approved by the court pursuant to law.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed this

8/24/2020
day _____.

Signature: 
Name: Srikalahasti M. Vagvala

SCHEDULE A**SRIKALAHASTI M. VAGVALA****CLASS PERIOD TRANSACTIONS****STOCK PURCHASES**

DATE	SHARES	PRICE
3/21/2018	10,000	(\$14.6200)
3/21/2018	20,000	(\$14.5900)
3/21/2018	20,000	(\$14.5900)
3/22/2018	10,000	(\$14.1700)
3/23/2018	20,000	(\$13.9400)
3/23/2018	20,000	(\$13.9000)
3/23/2018	12,553	(\$13.9100)
3/23/2018	800	(\$13.9050)
3/23/2018	6,647	(\$13.9000)
3/23/2018	30,000	(\$13.8400)
4/10/2018	8,911	(\$14.0900)
4/10/2018	300	(\$14.0870)
4/10/2018	500	(\$14.0850)
4/10/2018	289	(\$14.0800)
4/10/2018	20,000	(\$14.0900)
4/10/2018	20,000	(\$14.0800)
4/20/2018	10,000	(\$14.1800)
4/20/2018	24,892	(\$14.1400)
4/20/2018	5,108	(\$14.1350)
4/20/2018	8,734	(\$14.1500)
4/20/2018	1,266	(\$14.1450)
4/20/2018	10,000	(\$14.1100)
4/27/2018	1,100	(\$13.7600)
4/27/2018	1,000	(\$13.7500)
4/27/2018	7,900	(\$13.7800)
4/27/2018	20,000	(\$13.8000)
4/27/2018	6,000	(\$13.8100)
4/27/2018	20,000	(\$13.8200)
4/27/2018	34,000	(\$13.8100)
4/27/2018	30,000	(\$13.8000)
4/27/2018	30,000	(\$13.7800)
4/27/2018	50,000	(\$13.6900)
4/30/2018	20,000	(\$13.7100)
4/30/2018	20,000	(\$13.6800)
5/1/2018	14,700	(\$13.6400)
5/1/2018	5,300	(\$13.6390)
5/1/2018	20,000	(\$13.6250)
5/8/2018	5,000	(\$13.4800)

STOCK SALES

DATE	SHARES	PRICE
3/21/2018	10,000	\$14.7000
3/21/2018	10,000	\$14.7100
3/21/2018	10,000	\$14.7100
3/21/2018	300	\$14.7450
3/21/2018	19,700	\$14.7400
3/23/2018	20,000	\$13.9400
3/23/2018	20,000	\$13.9600
3/23/2018	10,000	\$13.9500
3/23/2018	5,300	\$14.0550
3/23/2018	1,000	\$14.0510
3/23/2018	13,700	\$14.0500
3/26/2018	20,000	\$13.9900
3/26/2018	10,000	\$13.9800
4/12/2018	100	\$14.3710
4/12/2018	9,900	\$14.3700
4/12/2018	10,000	\$14.3700
4/12/2018	10,000	\$14.3700
4/12/2018	10,000	\$14.3700
4/12/2018	3,100	\$14.3550
4/12/2018	400	\$14.3510
4/12/2018	100	\$14.3501
4/12/2018	6,400	\$14.3500
4/23/2018	100	\$14.3300
4/23/2018	9,900	\$14.3256
4/23/2018	200	\$14.3250
4/23/2018	9,800	\$14.3200
4/23/2018	5,112	\$14.3150
4/23/2018	14,888	\$14.3100
4/23/2018	10,000	\$14.3200
4/24/2018	500	\$14.8050
4/24/2018	2,300	\$14.8010
4/24/2018	5,000	\$14.8001
4/24/2018	2,200	\$14.8000
4/27/2018	1,000	\$13.9050
4/27/2018	9,000	\$13.9000
4/27/2018	100	\$13.9060
4/27/2018	10,697	\$13.9050
4/27/2018	4,203	\$13.9010

5/8/2018	5,000	(\$13.4800)	4/27/2018	2,000	\$13.9050
5/8/2018	6,300	(\$13.4800)	4/27/2018	9,200	\$13.9040
5/8/2018	3,700	(\$13.4700)	4/27/2018	3,800	\$13.9000
5/8/2018	10,000	(\$13.4700)	4/27/2018	800	\$13.9010
5/8/2018	6,600	(\$13.4700)	4/27/2018	9,200	\$13.9000
5/8/2018	3,109	(\$13.4800)	4/27/2018	3,073	\$13.9050
5/15/2018	10,988	(\$13.3800)	4/27/2018	6,927	\$13.9000
5/15/2018	9,012	(\$13.3700)	4/27/2018	8,350	\$13.9050
5/15/2018	20,000	(\$13.3500)	4/27/2018	1,650	\$13.9010
5/15/2018	20,000	(\$13.3500)	4/27/2018	900	\$13.9050
5/15/2018	20,000	(\$13.3500)	4/27/2018	1,400	\$13.9010
5/15/2018	20,000	(\$13.3400)	4/27/2018	6,300	\$13.9001
5/15/2018	20,000	(\$13.3400)	4/27/2018	1,400	\$13.9000
5/15/2018	30,000	(\$13.3000)	4/27/2018	4,200	\$13.9041
5/15/2018	50,000	(\$13.2900)	4/27/2018	800	\$13.9010
5/15/2018	7,521	(\$13.2400)	4/27/2018	1,200	\$13.9057
5/15/2018	2,950	(\$13.2800)	4/27/2018	2,700	\$13.9042
5/16/2018	50,000	(\$12.9000)	4/27/2018	1,100	\$13.9010
5/16/2018	50,000	(\$12.9000)	4/27/2018	400	\$13.9057
5/16/2018	6,126	(\$12.9090)	4/27/2018	200	\$13.9050
5/16/2018	5,694	(\$12.9050)	4/27/2018	4,200	\$13.9040
5/18/2018	50,000	(\$12.7300)	4/27/2018	200	\$13.9010
5/23/2018	44,500	(\$12.6900)	4/27/2018	5,000	\$13.9015
5/23/2018	5,500	(\$12.6800)	4/27/2018	2,400	\$13.9055
5/23/2018	19,220	(\$12.6700)	4/27/2018	3,100	\$13.9040
5/23/2018	30,780	(\$12.6200)	4/27/2018	2,500	\$13.9010
5/23/2018	50,000	(\$12.5900)	4/27/2018	3,100	\$13.9015
5/24/2018	38,400	(\$12.3100)	4/27/2018	4,900	\$13.9012
5/24/2018	8,600	(\$12.3000)	4/27/2018	4,000	\$13.9001
5/24/2018	3,000	(\$12.2900)	4/27/2018	200	\$13.8957
5/24/2018	50,000	(\$12.2900)	4/27/2018	4,300	\$13.8937
5/24/2018	50,000	(\$12.2800)	4/27/2018	500	\$13.8910
5/24/2018	10,000	(\$12.2100)	4/27/2018	4,700	\$13.8936
5/24/2018	11,775	(\$12.2100)	4/27/2018	300	\$13.8900
5/24/2018	100	(\$12.0000)	4/27/2018	5,000	\$13.8815
5/25/2018	100,000	(\$12.0300)	4/27/2018	5,000	\$13.8812
5/25/2018	100	(\$12.0500)	4/27/2018	8,430	\$13.8950
5/25/2018	49,900	(\$12.0700)	4/27/2018	2,400	\$13.8910
5/25/2018	100,000	(\$12.0500)	4/27/2018	9,170	\$13.8900
5/25/2018	1,000	(\$12.0300)	4/27/2018	100	\$13.8910
5/29/2018	69,100	(\$11.5200)	4/27/2018	9,900	\$13.8900
5/29/2018	3,800	(\$11.5199)	4/27/2018	1,170	\$13.8950
5/29/2018	1,000	(\$11.5190)	4/27/2018	1,000	\$13.8910
5/29/2018	25,000	(\$11.5150)	4/27/2018	7,830	\$13.8900
5/29/2018	400	(\$11.5125)	5/2/2018	3,400	\$13.7100
5/29/2018	700	(\$11.5100)	5/2/2018	6,600	\$13.7000
5/29/2018	200,000	(\$11.3500)	5/2/2018	10,000	\$13.7010
5/29/2018	200,000	(\$11.3500)	5/2/2018	100	\$13.7050

5/31/2018	50,000	(\$11.3500)	5/2/2018	9,900	\$13.7000
5/31/2018	10,000	(\$11.2800)	5/2/2018	10,000	\$13.7010
5/31/2018	41,900	(\$10.7400)	5/2/2018	10,000	\$13.7010
5/31/2018	200	(\$10.7375)	5/2/2018	3,800	\$13.7150
5/31/2018	8,000	(\$10.7350)	5/2/2018	200	\$13.7110
6/8/2018	20,000	(\$11.1800)	5/2/2018	6,000	\$13.7100
6/8/2018	30,000	(\$11.1800)	5/2/2018	1,800	\$13.7010
6/8/2018	50,000	(\$11.1400)	5/2/2018	8,200	\$13.7000
6/15/2018	100	(\$10.9800)	5/2/2018	10,000	\$13.7000
6/15/2018	19,900	(\$11.0000)	5/2/2018	1,000	\$13.6910
6/15/2018	30,000	(\$11.0100)	5/2/2018	9,000	\$13.6900
6/18/2018	30,000	(\$10.9700)	5/2/2018	10,000	\$13.7000
6/18/2018	60,000	(\$10.9700)	5/8/2018	800	\$13.5450
6/27/2018	20,000	(\$10.5000)	5/8/2018	9,200	\$13.5400
6/27/2018	30,000	(\$10.4900)	5/8/2018	10,000	\$13.5400
6/27/2018	25,000	(\$10.4900)	5/8/2018	10,000	\$13.5500
6/27/2018	25,000	(\$10.4700)	5/8/2018	9,709	\$13.5501
7/11/2018	29,400	(\$11.1300)	5/15/2018	10,000	\$13.4000
7/11/2018	600	(\$11.1250)	5/15/2018	7,521	\$13.4057
8/16/2018	14,400	(\$11.2200)	5/15/2018	10,000	\$13.4010
8/16/2018	8,600	(\$11.2199)	5/15/2018	10,000	\$13.4010
8/16/2018	7,000	(\$11.2150)	5/15/2018	5,476	\$13.4150
8/16/2018	30,000	(\$11.2300)	5/15/2018	700	\$13.4110
8/16/2018	40,000	(\$11.2300)	5/15/2018	3,824	\$13.4100
9/7/2018	19,500	(\$11.1000)	5/15/2018	1,900	\$13.4150
9/7/2018	500	(\$11.0990)	5/15/2018	100	\$13.4110
9/7/2018	17,024	(\$11.0900)	5/15/2018	1,000	\$13.4101
9/7/2018	300	(\$11.0890)	5/15/2018	6,770	\$13.4100
9/11/2018	3,976	(\$11.0100)	5/15/2018	100	\$13.3710
9/11/2018	14,350	(\$11.0099)	5/15/2018	9,900	\$13.3700
9/11/2018	8,850	(\$11.0050)	5/15/2018	300	\$13.3556
10/8/2018	27,100	(\$10.9300)	5/15/2018	4,700	\$13.3531
10/8/2018	600	(\$10.9290)	5/24/2018	493	\$12.0450
10/8/2018	2,300	(\$10.9250)	5/24/2018	11,382	\$12.0400
10/8/2018	20,000	(\$10.9300)	5/24/2018	900	\$12.0450
10/9/2018	18,940	(\$10.8500)	5/24/2018	100	\$12.0410
10/9/2018	1,060	(\$10.8400)	5/24/2018	9,000	\$12.0400
11/8/2018	10,000	(\$10.4500)	5/25/2018	49,290	\$12.0100
11/8/2018	20,000	(\$10.4100)	5/25/2018	1,710	\$12.0000
11/8/2018	10,000	(\$10.3300)	5/25/2018	300	\$12.0050
11/12/2018	50,000	(\$9.8700)	5/25/2018	49,700	\$12.0000
11/12/2018	50,000	(\$9.8800)	5/25/2018	8,800	\$12.1050
11/12/2018	37,400	(\$9.8700)	5/25/2018	600	\$12.1010
11/12/2018	11,000	(\$9.8699)	5/25/2018	1,600	\$12.1001
11/12/2018	1,000	(\$9.8690)	5/25/2018	29,000	\$12.1000
11/12/2018	600	(\$9.8650)	5/25/2018	20,000	\$12.1000
11/12/2018	22,982	(\$9.7900)	5/25/2018	7,429	\$12.0350
11/12/2018	27,018	(\$9.7850)	5/25/2018	12,571	\$12.0300

11/15/2018	9,860	(\$9.6800)	5/25/2018	20,000	\$12.0500
11/15/2018	140	(\$9.6700)	5/25/2018	20,000	\$12.0500
11/16/2018	20,000	(\$9.7700)	5/25/2018	4,390	\$12.0550
11/20/2018	23,200	(\$9.2300)	5/25/2018	600	\$12.0510
11/20/2018	6,800	(\$9.2250)	5/25/2018	15,010	\$12.0500
11/20/2018	30,000	(\$9.2300)	5/25/2018	11,900	\$12.0550
11/20/2018	10,000	(\$9.2600)	5/25/2018	1,000	\$12.0510
11/20/2018	16,616	(\$9.2100)	5/25/2018	3,400	\$12.0501
11/20/2018	100	(\$9.2090)	5/25/2018	3,700	\$12.0500
11/20/2018	13,284	(\$9.2050)	5/25/2018	800	\$12.0501
11/23/2018	22,400	(\$9.2900)	5/25/2018	19,200	\$12.0500
11/23/2018	2,600	(\$9.2800)	5/25/2018	20,000	\$12.0500
11/23/2018	5,400	(\$9.3400)	5/25/2018	8,341	\$12.0550
11/23/2018	23,200	(\$9.3399)	5/25/2018	11,659	\$12.0500
11/23/2018	100	(\$9.3390)	5/25/2018	15,000	\$12.0500
11/23/2018	1,300	(\$9.3350)	5/25/2018	20,000	\$12.0500
11/30/2018	49,700	(\$9.1700)	5/25/2018	25,000	\$12.0600
11/30/2018	300	(\$9.1650)	5/25/2018	500	\$12.0600
11/30/2018	50,000	(\$9.1200)	5/29/2018	50,000	\$11.2700
12/4/2018	44,764	(\$9.0600)	5/29/2018	196	\$11.2550
12/4/2018	236	(\$9.0599)	5/29/2018	800	\$11.2510
12/4/2018	5,000	(\$9.0550)	5/29/2018	1,900	\$11.2501
12/6/2018	30,000	(\$8.8900)	5/29/2018	16,604	\$11.2500
12/7/2018	31,745	(\$8.7900)	5/29/2018	20,000	\$11.2500
12/7/2018	10,055	(\$8.7899)	5/29/2018	200	\$11.2550
12/7/2018	1,000	(\$8.7890)	5/29/2018	19,800	\$11.2500
12/7/2018	7,200	(\$8.7850)	5/29/2018	20,000	\$11.2500
12/20/2018	22,000	(\$8.1200)	5/29/2018	300	\$11.2510
12/20/2018	1,200	(\$8.1199)	5/29/2018	19,700	\$11.2500
12/20/2018	2,000	(\$8.1190)	5/29/2018	500	\$11.2550
12/20/2018	4,800	(\$8.1150)	5/29/2018	19,500	\$11.2500
12/26/2018	31,543	(\$7.9500)	5/29/2018	300	\$11.2550
12/26/2018	17,684	(\$7.9450)	5/29/2018	1,100	\$11.2510
12/26/2018	773	(\$7.9400)	5/29/2018	28,600	\$11.2500
12/26/2018	7,370	(\$7.9500)	5/29/2018	700	\$11.2550
12/26/2018	12,200	(\$7.9499)	5/29/2018	1,000	\$11.2510
12/26/2018	30,059	(\$7.9450)	5/29/2018	4,300	\$11.2501
12/26/2018	371	(\$7.9400)	5/29/2018	14,000	\$11.2500
12/26/2018	11,922	(\$7.9499)	5/29/2018	700	\$11.2550
12/26/2018	38,078	(\$7.9450)	5/29/2018	900	\$11.2510
12/26/2018	27,160	(\$7.9500)	5/29/2018	18,400	\$11.2500
12/26/2018	13,700	(\$7.9499)	5/29/2018	1,900	\$11.2550
12/26/2018	800	(\$7.9490)	5/29/2018	700	\$11.2510
12/26/2018	6,340	(\$7.9450)	5/29/2018	17,400	\$11.2500
12/26/2018	2,000	(\$7.9400)	5/29/2018	100	\$11.2510
12/27/2018	49,600	(\$7.6800)	5/29/2018	19,900	\$11.2500
12/27/2018	400	(\$7.6750)	5/29/2018	800	\$11.2110
12/27/2018	39,929	(\$7.6600)	5/29/2018	19,200	\$11.2100

12/27/2018	10,071	(\$7.6550)	5/29/2018	100	\$11.2110
12/31/2018	20,000	(\$8.0800)	5/29/2018	19,900	\$11.2100
1/17/2019	10,000	(\$8.8800)	5/29/2018	3,350	\$11.2150
1/31/2019	10,000	(\$8.8700)	5/29/2018	16,650	\$11.2100
2/1/2019	30,000	(\$8.6100)	5/29/2018	200	\$11.2050
2/7/2019	20,000	(\$8.6300)	5/29/2018	29,800	\$11.2000
2/7/2019	20,000	(\$8.6300)	5/29/2018	21,142	\$11.2050
2/14/2019	15,374	(\$8.3700)	5/29/2018	1,300	\$11.2025
2/14/2019	4,626	(\$8.3650)	5/29/2018	1,400	\$11.2010
5/6/2019	20,000	(\$8.0200)	5/29/2018	6,158	\$11.2000
3/11/2020	20,000	(\$6.6200)	5/29/2018	45,000	\$11.1900
3/12/2020	20,000	(\$5.6100)	5/30/2018	25,000	\$11.4400
3/12/2020	10,000	(\$5.5900)	5/30/2018	25,000	\$11.4400
3/12/2020	30,000	(\$5.5700)	5/30/2018	20,000	\$11.4300
5/15/2020	10,000	(\$6.4500)	5/30/2018	9,874	\$11.4350
			5/30/2018	300	\$11.4310
			5/30/2018	600	\$11.4301
			5/30/2018	9,226	\$11.4300
			5/30/2018	100	\$11.4410
			5/30/2018	14,900	\$11.4400
			5/30/2018	20,000	\$11.4600
			5/30/2018	20,000	\$11.4600
			5/30/2018	13,725	\$11.4950
			5/30/2018	100	\$11.4910
			5/30/2018	6,175	\$11.4900
			5/30/2018	6,357	\$11.4950
			5/30/2018	1,000	\$11.4910
			5/30/2018	12,643	\$11.4900
			5/30/2018	5,251	\$11.5350
			5/30/2018	14,749	\$11.5300
			5/30/2018	20,000	\$11.5400
			5/30/2018	20,000	\$11.6000
			5/30/2018	4,200	\$11.5950
			5/30/2018	100	\$11.5910
			5/30/2018	15,700	\$11.5900
			5/30/2018	20,000	\$11.5900
			5/30/2018	200	\$11.5650
			5/30/2018	100	\$11.5610
			5/30/2018	700	\$11.5601
			5/30/2018	19,000	\$11.5600
			5/30/2018	20,000	\$11.5600
			5/31/2018	500	\$11.0800
			5/31/2018	4,400	\$11.0700
			5/31/2018	95,100	\$11.0600
			5/31/2018	2,000	\$11.1900
			5/31/2018	58,000	\$11.1800
			5/31/2018	50,000	\$11.1700
			5/31/2018	100	\$11.0900

5/31/2018	6,000	\$11.1250
5/31/2018	1,000	\$11.1210
5/31/2018	10,275	\$11.1200
5/31/2018	100	\$11.0950
5/31/2018	32,625	\$11.0900
5/31/2018	17,400	\$11.0800
5/31/2018	32,600	\$11.0700
6/8/2018	50,000	\$11.2300
6/8/2018	30,000	\$11.2200
6/8/2018	15,000	\$11.2100
6/8/2018	5,000	\$11.2300
6/15/2018	800	\$11.0710
6/15/2018	12,900	\$11.0701
6/15/2018	6,300	\$11.0700
6/15/2018	20,000	\$11.0700
6/18/2018	3,937	\$10.9950
6/18/2018	16,063	\$10.9900
6/18/2018	2,700	\$10.9910
6/18/2018	17,300	\$10.9900
6/18/2018	1,700	\$10.9910
6/18/2018	215	\$10.9901
6/18/2018	8,085	\$10.9900
6/18/2018	1,000	\$11.0510
6/18/2018	19,000	\$11.0500
6/18/2018	1,000	\$11.0410
6/18/2018	2,600	\$11.0401
6/18/2018	16,400	\$11.0400
6/18/2018	10,000	\$11.0400
6/27/2018	30,000	\$10.4300
6/27/2018	20,000	\$10.4300
6/27/2018	10,000	\$10.4300
6/27/2018	100	\$10.4250
6/27/2018	9,900	\$10.4200
6/27/2018	10,000	\$10.4200
6/27/2018	10,000	\$10.4200
6/27/2018	10,000	\$10.4000
7/11/2018	700	\$11.1650
7/11/2018	1,000	\$11.1610
7/11/2018	4,400	\$11.1601
7/11/2018	23,900	\$11.1600
8/17/2018	800	\$11.0750
8/17/2018	19,200	\$11.0701
8/17/2018	2,900	\$11.0750
8/17/2018	17,100	\$11.0700
8/17/2018	1,600	\$11.0750
8/17/2018	18,400	\$11.0700
8/17/2018	40,000	\$11.1600
9/7/2018	10,000	\$11.1800

9/7/2018	10,000	\$11.1850
9/11/2018	3,432	\$11.1750
9/11/2018	2,301	\$11.1710
9/11/2018	222	\$11.1701
9/11/2018	8,545	\$11.1700
9/11/2018	1,100	\$11.1750
9/11/2018	13,900	\$11.1700
9/17/2018	15,000	\$11.5400
10/8/2018	20,000	\$11.0400
10/8/2018	20,000	\$11.0400
10/8/2018	10,000	\$11.0400
10/9/2018	4,100	\$10.9510
10/9/2018	5,900	\$10.9500
10/9/2018	10,000	\$10.9400
11/12/2018	24,275	\$9.9100
11/12/2018	15,725	\$9.9000
11/12/2018	12,418	\$9.7350
11/12/2018	7,582	\$9.7300
11/12/2018	900	\$9.7350
11/12/2018	19,100	\$9.7300
11/12/2018	20,000	\$9.7300
11/13/2018	20,000	\$9.8700
11/13/2018	20,000	\$9.9100
11/13/2018	5,000	\$9.9150
11/13/2018	15,000	\$9.9100
11/13/2018	20,000	\$9.9100
11/13/2018	1,000	\$9.9110
11/13/2018	19,000	\$9.9100
11/13/2018	300	\$9.9350
11/13/2018	19,700	\$9.9300
11/13/2018	2,200	\$9.9450
11/13/2018	300	\$9.9410
11/13/2018	5,600	\$9.9401
11/13/2018	11,900	\$9.9400
11/16/2018	10,000	\$9.8100
11/16/2018	10,000	\$9.8100
11/16/2018	10,000	\$9.8000
11/21/2018	20,000	\$9.4400
11/21/2018	3,404	\$9.4450
11/21/2018	26,596	\$9.4400
11/21/2018	25,000	\$9.4300
11/23/2018	100	\$9.3250
11/23/2018	5,923	\$9.3200
11/23/2018	13,977	\$9.3100
11/26/2018	10,000	\$9.5700
11/26/2018	10,000	\$9.5600
11/26/2018	200	\$9.5750
11/26/2018	9,800	\$9.5700

11/26/2018	10,000	\$9.5800
11/26/2018	10,000	\$9.5800
11/26/2018	10,000	\$9.6900
12/3/2018	25,000	\$9.4700
12/3/2018	15,000	\$9.4800
12/3/2018	20,000	\$9.4800
12/3/2018	4,600	\$9.4800
12/3/2018	15,400	\$9.4700
12/3/2018	10,000	\$9.4300
12/3/2018	10,000	\$9.4300
12/10/2018	20,000	\$8.5800
12/10/2018	1,100	\$8.5850
12/10/2018	18,900	\$8.5800
12/10/2018	2,800	\$8.5850
12/10/2018	1,100	\$8.5810
12/10/2018	16,100	\$8.5800
12/10/2018	400	\$8.4850
12/10/2018	19,600	\$8.4800
12/10/2018	20,000	\$8.3600
12/10/2018	20,000	\$8.3700
12/10/2018	10,000	\$8.3700
12/24/2018	10,000	\$7.9000
12/24/2018	10,000	\$7.9000
12/24/2018	10,000	\$7.9000
12/27/2018	200	\$7.7950
12/27/2018	19,800	\$7.7900
12/27/2018	20,000	\$7.7900
12/27/2018	20,000	\$7.7900
12/27/2018	20,000	\$7.7900
12/27/2018	20,000	\$7.7900
12/27/2018	200	\$7.7950
12/27/2018	2,000	\$7.7910
12/27/2018	700	\$7.7901
12/27/2018	17,100	\$7.7900
12/27/2018	2,600	\$7.7950
12/27/2018	17,400	\$7.7900
12/27/2018	2,000	\$7.7910
12/27/2018	18,000	\$7.7900
12/27/2018	800	\$7.7950
12/27/2018	1,000	\$7.7910
12/27/2018	500	\$7.7901
12/27/2018	17,700	\$7.7900
12/27/2018	20,000	\$7.8100
12/27/2018	6,837	\$7.8150
12/27/2018	955	\$7.8110
12/27/2018	12,208	\$7.8100
12/27/2018	20,000	\$7.8100
12/28/2018	10,000	\$8.0800

12/28/2018	10,000	\$8.0800
12/28/2018	1,400	\$8.0850
12/28/2018	700	\$8.0801
12/28/2018	12,900	\$8.0800
12/28/2018	1,500	\$8.0750
12/28/2018	8,500	\$8.0700
12/28/2018	900	\$8.0650
12/28/2018	100	\$8.0610
12/28/2018	3,200	\$8.0601
12/28/2018	10,800	\$8.0600
12/31/2018	10,000	\$8.1300
12/31/2018	10,000	\$8.1400
1/23/2019	400	\$9.0350
1/23/2019	9,600	\$9.0300
2/1/2019	1,000	\$8.7950
2/1/2019	19,000	\$8.7900
2/1/2019	200	\$8.8750
2/1/2019	19,800	\$8.8700
2/15/2019	1,500	\$8.6750
2/15/2019	18,500	\$8.6700
2/15/2019	20,000	\$8.6700
2/15/2019	1,400	\$8.6750
2/15/2019	8,600	\$8.6700
2/15/2019	3,152	\$8.7432
2/15/2019	1,848	\$8.7400
2/25/2019	5,000	\$8.8042
5/6/2019	20,000	\$8.1200
3/12/2020	20,000	\$5.4700
3/12/2020	7,122	\$5.4900
3/12/2020	12,878	\$5.4700
3/12/2020	10,000	\$5.4300
3/12/2020	10,000	\$5.4300
3/12/2020	300	\$5.8350
3/12/2020	702	\$5.8300
3/12/2020	300	\$5.8250
3/12/2020	400	\$5.8201
3/12/2020	3,900	\$5.8200
3/12/2020	300	\$5.8150
3/12/2020	698	\$5.8101
3/12/2020	3,400	\$5.8100
3/12/2020	10,000	\$5.7101
5/18/2020	10,000	\$7.1200